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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,230	01/04/2002	John A. Lawton	P 283268 D1087-CON	2923
909	7590	01/23/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			HAMILTON, CYNTHIA	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	

1752

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

10/035,230

Examiner

Cynthia Hamilton

Applicant(s)

LAWTON ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendments filed 12/18/2003 and 12/12/2003, Terminal Disclaimer filed 9/26/2003, 12/12/03.
2. ☒ The allowed claim(s) is/are 21-29,31,32,49 and 50.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**


7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other _____ |


CYNTHIA HAMILTON
PRIMARY EXAMINER

Cynthia Hamilton
Primary Examiner
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EXAMINER'S AMENDMENT

1. This Notice of Allowability is supplemental to the Notice of Allowability Mailed January 13, 2004. All of the Notice of Allowability mailed January 13, 2004 is incorporated into this Notice of Allowability with the following addition.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. This amendment is made to correct a procedural problem with the amendment of claims presented by applicants in their Amendment filed August 21, 2003. The Amendment of August 21, 2003 is improper because it did not comply with the 37 CFR 1.121 change Effective Date July 30, 2003. Applicants used (Previously Added) instead of (previously presented) and (Currently Cancelled) instead of (cancelled) and (Currently Added) instead of (new). The amendment to the claims of August 21, 2003 cannot be entered for this reason. Since a Notice of Allowance has already been sent allowing these claims in the form of August 21, 2003, the examiner has by Examiner's amendment put the claims in the proper order as follows on the next page. This amendment is made to fix a procedural problem and not a problem with the scope of the claims. Applicant's submission of the August 21, 2003 amendment is taken as evidence applicants agree with the amendment below.

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The application has been amended as follows:

Claims 1-20. (Cancelled).

21. (Currently Amended) A photosensitive composition comprising:

- (a) ~~a cycloaliphatic diepoxide~~ an epoxide containing material;
- (b) an aliphatic polyfunctional (meth)acrylate;
- (c) a hydroxyl-containing material selected from the group consisting of aliphatic polycarbonate diols and ~~hydroxy-terminated polyethers~~ polytetrahydrofuran polyether polyols;
- (d) at least one cationic photoinitiator; ~~and~~
- (e) at least one free-radical photoinitiator; ~~and~~
- (f) an aromatic or cycloaliphatic acrylic material;

wherein said composition, after full cure by exposure to actinic radiation and optionally heat, has:

- ~~(i) an elongation at yield in the range of 7% to no yield;~~
- ~~(ii) (i) a tensile modulus in the range of 1000 to 1600 N/mm²; and~~
- ~~(iii) (ii) an average elongation at break of at least 10%.~~

22. (previously presented) The composition of claim 21, wherein said hydroxyl-containing material includes an aliphatic polycarbonate diol.

23. (previously presented) The composition of claim 21, wherein said hydroxyl-containing material includes a polytetrahydrofuran polyether polyol.

24. (previously presented) The composition of claim 23, wherein said polytetrahydrofuran polyether polyol has a molecular weight in the range of 250-2900.

25. (previously presented) The composition of claim 23, wherein said polytetrahydrofuran polyether polyol has a molecular weight of about 1000.

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26. (previously presented) The composition of claim 21, wherein said composition comprises trimethylolpropane triacrylate.
27. (previously presented) The composition of claim 23, wherein said composition comprises an acrylate of bisphenol A diepoxide.
28. (previously presented) The composition of claim 23, wherein said composition comprises dipentaerythritol monohydroxypenta(meth)acrylate.
29. (previously presented) The composition of claim 23, wherein said composition comprises 10-20% by weight of acrylic material.
30. (canceled).
31. (previously presented) A process for forming a three-dimensional article comprising:
- (1) coating a layer of the composition of claim 21 onto a surface;
 - (2) exposing the layer imagewise to actinic radiation to form an imaged cross-section, wherein the radiation is of sufficient intensity to cause substantial curing of the layer in the exposed areas;
 - (3) coating a layer of the composition of claim 21 onto the previously exposed imaged cross-section;
 - (4) exposing said layer from step (3) imagewise to actinic radiation to form an additional imaged cross-section, wherein the radiation is of sufficient intensity to cause substantial curing of the thin layer in the exposed areas and to cause adhesion to the previously exposed imaged cross-section;
 - (5) repeating steps (3) and (4) a sufficient number of times in order to build up a three-dimensional article.

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32. (previously presented) A three dimensional article formed by the process of claim 31.

Claims 33-48 (canceled)

49. (new) The composition of claim 21, wherein said composition comprises a mixture of epoxy-containing materials.

50. (new) The composition of claim 21, wherein said composition comprises 5-35 wt% of said aromatic or cycloaliphatic acrylic material.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-331. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 0661.

A handwritten signature in black ink, appearing to read 'Cynthia Hamilton', with a stylized, cursive script.

Cynthia Hamilton
Primary Examiner
Art Unit 1752

January 13, 2004

CYNTHIA HAMILTON
PRIMARY EXAMINER